a resilient arm having a portion thereof coupled to the first side of the beam

flange;

a locking pin extending from the resilient arm, the locking pin protruding

through the locking pin opening,

the resilient arm biasing the locking pin through the locking pin opening of the

beam flange; and

a locking flange extending from the locking pin, a portion of the locking flange disposed alongside the second side of the beam flange.

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23. (Amended) The latch assembly of Claim 22, wherein the flange recess is disposed between the locking pin opening and the resilient arm retention opening.

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- 27. (Amended) A flex-limited, latching, locking latch and beam combination, comprising:
- a beam flange having an opening through the flange and a flexible arm retention slot;
 - a flexible arm having a portion coupled to a side of the flange;
- a locking portion extending from the flexible arm, the locking portion protruding through the flange opening; and
- a flex limiting member extending from the locking portion along a side of the flange opposite the side thereof to which the flexible arm is coupled,

whereby the flex limiting member is engageable with the side of the flange along which it extends to limit flexing of the flexible arm away from the side of the flange to which the flexible arm is coupled.

28. (Amended) The latch of Claim 27, a recess disposed on the side of the flange opposite the side thereof to which the flexible arm is coupled, a portion of the flex limiting member disposable in the recess when the flexible arm is flexed away from the side of the flange to which the flexible arm is coupled.

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- 32. (Amended) A flex-limited, latching, locking latch and beam combination, comprising:
- a beam flange having an opening through the flange and a flexible arm retention slot;
 - a flexible arm having a portion coupled to a side of the flange;
- a locking portion extending from the flexible arm, the locking portion protruding through the flange opening;
- a flex limiting member extending from the locking portion along a side of the flange opposite the side thereof to which the flexible arm is coupled; and
- a recess disposed on the side of the flange opposite the side thereof to which the flexible arm is coupled,

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wherein a portion of the flex limiting member is disposable in the recess when the flexible arm is flexed away from the side of the flange to which the flexible arm is coupled.

Please add the following new claims:

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35. (New) A locking member for a rack, comprising:

a mounting bracket, having a first leg defining a substantially flat interior surface and an exterior surface and a plurality of mounting studs projecting inwardly from said interior surface, said first leg also defining at least a first through hole;

a resilient member mounted on said first leg, lying adjacent to said exterior surface, and including a locking pin having a shank extending through said first hole, wherein said locking pin defines an enlarged head portion and said interior surface defines a recess adjacent to said first hole which receives said enlarged head portion.

- 36. (New) A locking member for a rack as recited in claim 35, wherein said recess is deep enough to permit said locking pin to be substantially flush with said interior surface when said resilient member is retracted.
- 37. (New) A locking member for a rack as recited in claim 36, wherein said first hole includes an enlarged-width portion large enough to permit the head of said locking pin to pass through and a narrower width portion large enough to permit the shank to

pass through but too narrow to permit said enlarged head to pass through, and wherein said recess lies adjacent to said narrower width portion.

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- 38. (New) A locking member for a rack as recited in claim 36, wherein said resilient member is staked to said first leg at an end distant from said locking pin.
- 39. (New) A locking member for a rack as recited in claim 36, wherein said first leg also defines a second hole, and wherein both said first and second holes define an enlarged width portion and a reduced width portion, and wherein said interior surface defines recesses adjacent to the reduced-width portion of each of said holes.
- 40. (New) A locking member for a rack as recited in claim 37, wherein said first leg also defines a second hole, and wherein both said first and second holes define an enlarged width portion and a reduced width portion, and wherein said interior surface defines recesses adjacent to the reduced-width portion of each of said holes.
- 41. (New) A locking member for a rack as recited in claim 39, wherein said resilient member includes a clip having left and right wings mounted in the recess of said second hole.
- 42. (New) A locking member for a rack as recited in claim 36, and further comprising a hole in said resilient member aligned with a hole in said first leg.

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43. (New) A mounting bracket for mounting a horizontal beam of a rack on a vertical member of a rack, comprising:

an L-shaped member, having a substantially flat interior surface and an exterior surface and defining first and second legs, said first leg having two lugs protecting inwardly from its interior surface and defining first and second holes, said second hole having a narrow width portion, and wherein said interior surface defines a recess adjacent to said narrow width portion.

- 44. (New) A mounting bracket as recited in claim 43, and further comprising a resilient member mounted on said first leg, said resilient member including a clip extending through said second hole and retained in said recess.
- 45. (New) A mounting bracket as recited in claim 44, wherein said resilient member further includes a locking pin which extends through said first hole.
- 46. (New) A mounting bracket as recited in claim 45, wherein said locking pin has a shank and an enlarged head and said first hole defines an enlarged width portion large enough to permit the enlarged head to pass through and a narrower width portion, which is wide enough to permit the shank to pass through but not wide enough to permit the enlarged head to pass through.

b5 cont 47. (New) A mounting bracket as recited in claim 46, wherein said interior surface also defines a recess adjacent to the narrower width portion of said first hole, in order to permit the enlarged head to be retracted to a position substantially flush with said interior surface.

48. (New) A rack, including:

a plurality of vertical members defining a plurality of vertical member holes, and a plurality of horizontal beams supported on said vertical members;

a mounting bracket at the end of one of said horizontal beams, including an L-shaped member, having a substantially flat interior surface and an exterior surface and defining first and second legs, said first leg having at least two lugs projecting inwardly from its interior surface, said two lugs being ecceived in two of said vertical member holes; wherein said first leg defines first and second holes, at least said first hole being aligned with one of said vertical member holes, each of said first and second holes having an enlarged width portion and a narrower width portion, wherein said interior surface defines a recess adjacent to each of said narrower width portions, and the recess adjacent to the narrower width portion of said second hole terminates short of its respective enlarged width portions; and

a resilient locking member including a clip mounted in the recess of said second hole, with said vertical member preventing said clip from moving further inwardly,

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and including a locking pin having a shank and an enlarged head, wherein the shank extends through said first hole and through the vertical member hole aligned with said first hole.

49. (New) A method of assembling and disassembling a storage rack system, the method comprising the steps of:

providing a beam member including a headed lug, a spaced apart opening, and a recess;

connecting a latch assembly to the beam member, the latch assembly including a resilient arm and a locking pin extending from the resilient arm, such that the resilient arm biases the locking pin through the opening in the beam member;

connecting the beam member to a post, such that the headed lug is received by a first opening in the post, and such that the resilient arm biases the locking pin at least partially into a second opening in the post; and

wherein the steps of disassembling the storage rack system include,

withdrawing the locking pin from the second opening in the post to allow the beam member to be disconnected from the post;

preventing the locking pin from being completely withdrawn from the second opening in the beam member, such that the recess in the beam member limits the movement of the resilient arm; and

disconnecting the beam member from the post.

50. (New) A locking latch arrangement for a storage rack system, comprising:

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a beam flange having a plurality of mounting studs projecting inwardly for connecting the beam flange to a post, the beam flange including an inner surface and the beam flange also defining at least a first locking pin opening;

a resilient arm latch mounted on the beam flange, lying adjacent to the exterior surface of the beam flange, and including a locking pin extending through the locking pin opening, wherein the locking pin shank includes a locking flange and wherein the inner surface of the beam flange includes a flange recess area adjacent to the locking pin opening to accommodate the locking flange.

- 51. (New) The locking latch arrangement of claim 50, wherein the recess is deep enough to permit the locking pin and locking flange to be substantially flush with the interior surface of the beam flange when the resilient arm latch is retracted.
- 52. (New) The locking latch arrangement of claim 51, wherein the locking pin opening includes an aperture portion large enough to permit the locking pin and locking flange to pass through and a slot portion large enough to permit the locking pin to pass through but too narrow to permit the locking flange to pass through, and wherein the recess lies adjacent to the slot portion.

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53. (New) The locking latch arrangement of claim 51, wherein the resilient arm is fastened to the beam flange at an end distant from the locking pin.

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- 54. (New) The locking latch arrangement of claim 51, wherein the beam flange also defines a second opening, and wherein both the first and second openings define an aperture portion and a slot portion, and wherein the beam flange inner surface defines recesses adjacent to the slot portion of each of the openings.
- 55. (New) The locking latch arrangement of claim 52, wherein the beam flange defines a second opening and wherein both the first and second openings define an aperture portion and a slot portion, and wherein the beam flange inner surface defines recesses adjacent to the slot portion of each of the openings.
- 56. (New) The locking latch arrangement of claim 54, wherein the resilient arm latch includes a clip having left and right wings mounted in the recess of the second opening.
- 57. (New) The locking latch arrangement of claim 51, wherein the resilient arm latch includes a hole which may be aligned with an opening in the beam flange.

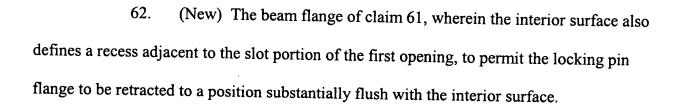
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58. (New) A beam flange for mounting a horizontal beam of a rack on a vertical member of a rack, comprising:

an L-shaped flange, having a substantially flat interior surface and an exterior surface and defining first and second legs, the first leg having two lugs protecting inwardly from its interior surface and defining first and second openings, the second opening having a slot portion, and wherein the interior surface defines a recess adjacent to slot portion.

- 59. (New) The beam flange of claim 58, and further comprising a resilient latch mounted on the first leg, the resilient latch including a clip extending through the second opening and retained in the recess.
- 60. (New) The beam flange of claim 59, wherein the resilient latch further includes a locking pin which extends through the first opening.
- 61. (New) The beam flange of claim 60, wherein the locking pin has a shank and a locking pin flange and the first opening defines an enlarged aperture large enough to permit the locking pin flange to pass through and a slot portion, which is wide enough to permit the shank to pass through but not wide enough to permit the locking pin flange to pass through.

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63. (New) A rack, including:

a plurality of vertical posts defining a plurality of vertical post holes, and a plurality of horizontal beams supported on the vertical posts;

a mounting bracket at the end of one of the horizontal beams, including an L-shaped member, having a substantially flat interior surface and an exterior surface and defining first and second legs, the first leg having at least two lugs projecting inwardly from its interior surface, the two lugs being received in two of the vertical post holes; wherein the first leg defines first and second openings, at least the first opening being aligned with one of the vertical post holes, each of the first and second openings having an enlarged aperture and a slot portion, wherein the interior surface defines a recess adjacent to each of the slot portions; and

a resilient latch including a clip mounted in the recess of the second opening, with the vertical post preventing the clip from moving further inwardly, and including a locking pin having a shank and a locking pin flange, wherein the shank extends through the first opening and through the vertical post hole aligned with the first opening.

II. Identification Of Patent With Which Interference Is Sought

Pursuant to 37 C.F.R. § 1.606-608, Applicant requests declaration of an interference at least as between Kautz et al. United States Patent 6,241,109 (the "'109 patent") claims 1-15 and at least claims 35-63 of the present application. The '109 patent issued on June 5, 2001, and claims 35-63 were added to the present application within one year of the issuance of the '109 patent.

III. The Proposed Count

Applicant further proposes two counts for the requested interference. The two proposed counts consist of claims 50 and 58 of the present application. Proposed Count 1 reads as follows:

A locking latch arrangement for a storage rack system, comprising:

a beam flange having a plurality of mounting studs projecting inwardly for connecting the beam flange to a post, the beam flange including an inner surface and the beam flange also defining at least a first locking pin opening;

a resilient arm latch mounted on the beam flange, lying adjacent to the exterior surface of the beam flange, and including a locking pin extending through the locking pin opening, wherein the locking pin shank includes a locking flange and wherein the inner surface of the beam flange includes a flange

recess area adjacent to the locking pin opening to accommodate the locking flange.

Proposed Count 2 reads as follows:

A beam flange for mounting a horizontal beam of a rack on a vertical member of a rack, comprising:

an L-shaped flange, having a substantially flat interior surface and an exterior surface and defining first and second legs, the first leg having two lugs protecting inwardly from its interior surface and defining first and second openings, the second opening having a slot portion, and wherein the interior surface defines a recess adjacent to slot portion.

IV. Claims Corresponding To The Proposed Count

At least present application claims 35-42, 44-49, 51-57, and 59-63 correspond substantially to proposed Count 1 and claim 50 corresponds identically to proposed Count 1.

At least claims 1-8 and 10-15 of the '109 patent correspond substantially to proposed Count 1.

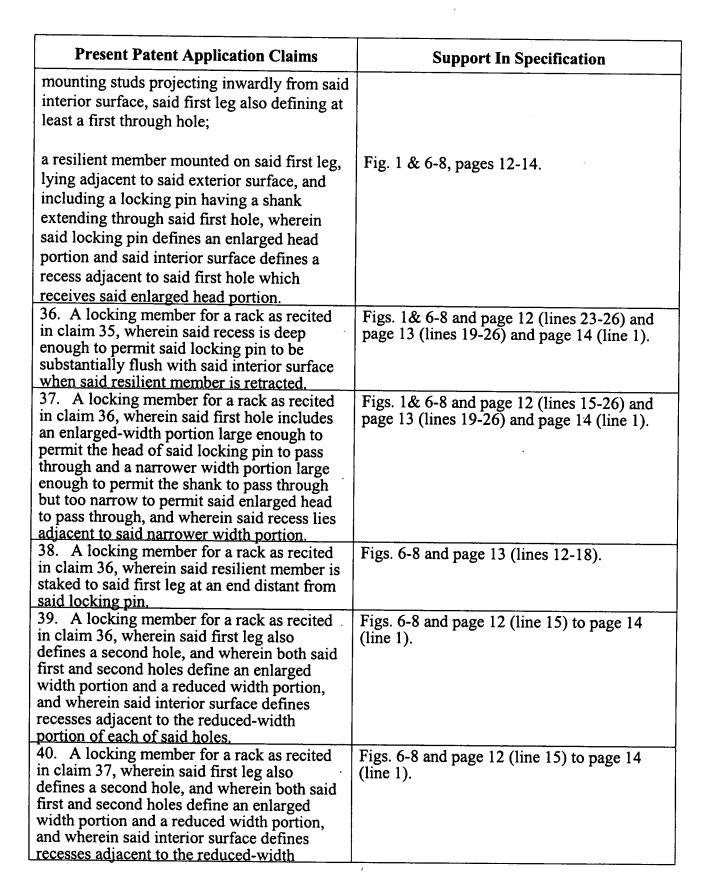
At least present application claim 43 corresponds substantially to proposed Count 2 and claim 58 corresponds identically to proposed Count 2. At least claim 9 of the '109 patent corresponds substantially to proposed Count 2. The claim comparison set forth in attached Appendix C illustrates the claiming of the same patentable invention as between the '109 patent and the present application:

As illustrated in Appendix C, claim 1 of the '109 patent and claims 35 and 50 of the present application are directed to the same invention. Further, claims 2-8 and 10-15 of the '109 patent and claims 36-42, 44-49, 51-57, and 59-63 are directed to the same patentable invention as application claims 35 and 50 and '109 patent claim 1. '109 patent claims 2-8 and 10-15 provide obvious detail as to the particular shape of the desired resilient arm latch, the cooperating beam flange and the cooperating post. Likewise, claims 36-42, 44-49, 51-57, and 59-63 are obvious variants of the invention of claims 35 and 50 of the present application. Claim 49 is directed to the method of using the claimed latching arrangement. Application claim 35-48 and 50-63 are either copied from the '109 patent or are directed to substantially the same invention using the language and terminology of the present application specification. Therefore, claims 1-15 of the '109 patent and claims 35-42, 44-49, 50-57 and 59-63 of the present application correspond to proposed Count 1.

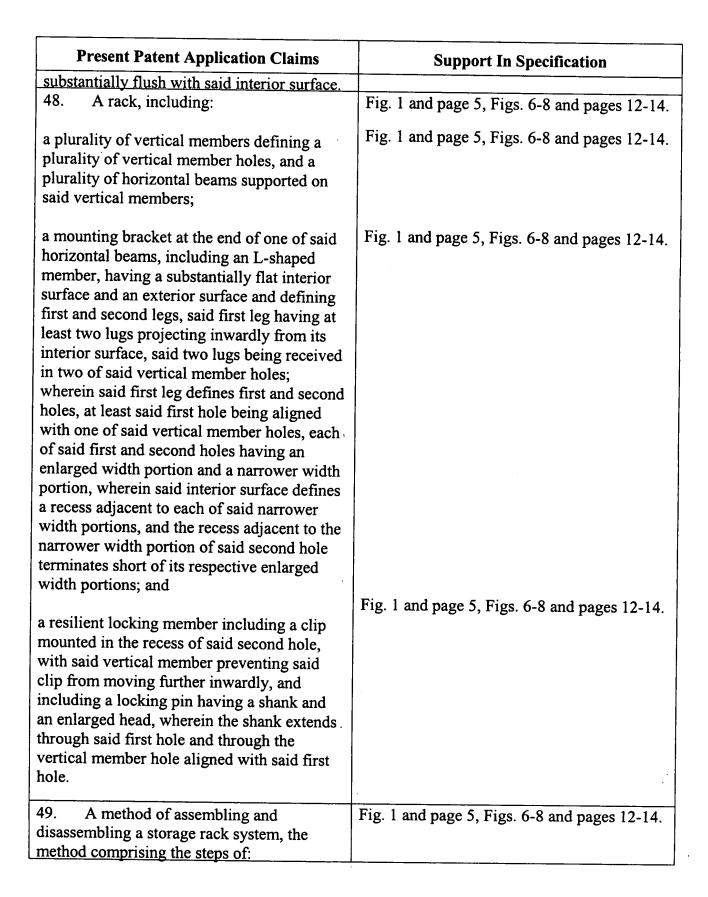
Also as illustrated in Appendix C, claim 9 of the '109 patent is directed to a mounting bracket. Claim 43 of the present application is directed to substantially the same invention and claim 58 is identical to proposed Count 2. Therefore, claim 9 of the '109 patent and claims 43 and 58 of the present application correspond to proposed Count 2.

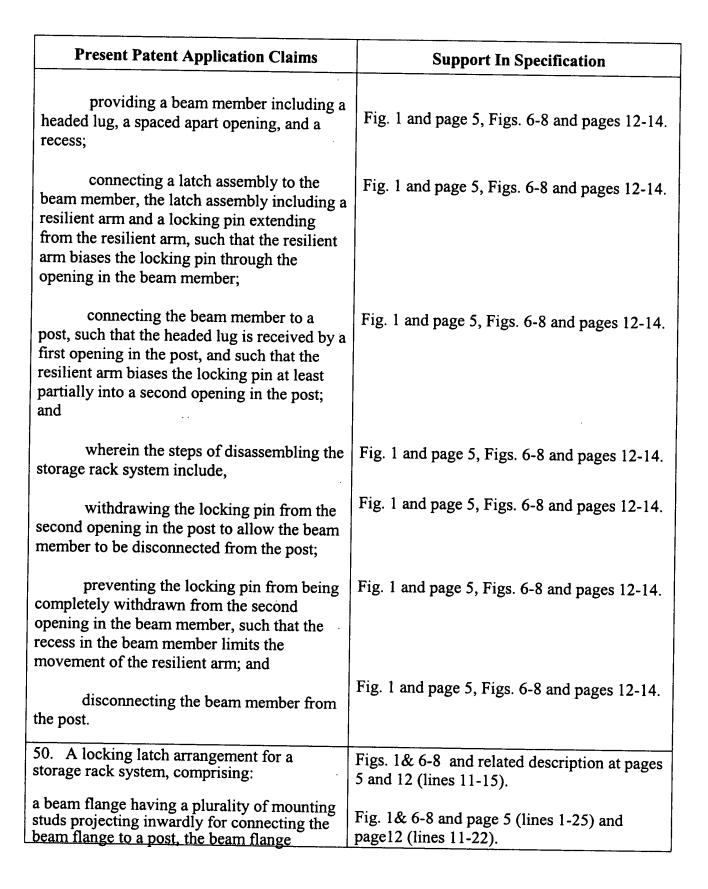
V. Identification Of Support In Specification For Application Claims

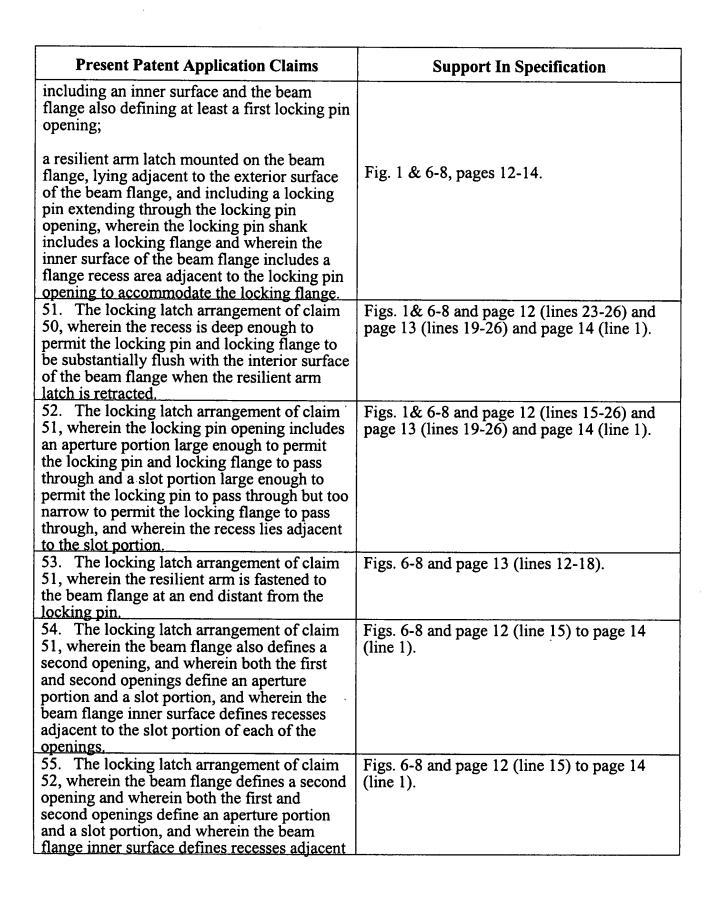
| Present Patent Application Claims | Support In Specification |
|--|---|
| 35. A locking member for a rack, comprising: | Figs. 1& 6-8 and related description at pages 5 and 12 (lines 11-15). |
| a mounting bracket, having a first leg defining a substantially flat interior surface and an exterior surface and a plurality of | Fig. 1& 6-8 and page 5 (lines 1-25) and page 12 (lines 11-22). |



| Present Patent Application Claims | Support In Specification |
|--|--|
| portion of each of said holes. | |
| 41. A locking member for a rack as recited in claim 39, wherein said resilient member includes a clip having left and right wings mounted in the recess of said second hole. | Figs. 6-8 and page 13 (lines 12-18). |
| 42. A locking member for a rack as recited in claim 36, and further comprising a hole in said resilient member aligned with a hole in said first leg. | Figs. 6-8. |
| 43. A mounting bracket for mounting a horizontal beam of a rack on a vertical member of a rack, comprising: | Figs. 1 & 6-8 and pages 5 and 12-14. |
| an L-shaped member, having a substantially flat interior surface and an exterior surface and defining first and second legs, said first leg having two lugs protecting inwardly from its interior surface and defining first and second holes, said second hole having a narrow width portion, and wherein said interior surface defines a recess adjacent to said narrow width portion. | · |
| 44. A mounting bracket as recited in claim 43, and further comprising a resilient member mounted on said first leg, said resilient member including a clip extending through said second hole and retained in said recess. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 45. A mounting bracket as recited in claim 44, wherein said resilient member further includes a locking pin which extends through said first hole. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 46. A mounting bracket as recited in claim 45, wherein said locking pin has a shank and an enlarged head and said first hole defines an enlarged width portion large enough to permit the enlarged head to pass through and a narrower width portion, which is wide enough to permit the shank to pass through but not wide enough to permit the enlarged head to pass through. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 47. A mounting bracket as recited in claim 46, wherein said interior surface also defines a recess adjacent to the narrower width portion of said first hole, in order to permit the enlarged head to be retracted to a position | Figs. 1 & 6-8 and pages 12 (line 11) to 14 (line 1). |











| Present Patent Application Claims | Support In Specification |
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| to the slot portion of each of the openings. 56. The locking latch arrangement of claim 54, wherein the resilient arm latch includes a clip having left and right wings mounted in the recess of the second opening. | Figs. 6-8 and page 13 (lines 12-18). |
| 57. The locking latch arrangement of claim 51, wherein the resilient arm latch includes a hole which may be aligned with an opening in the beam flange. | Figs. 6-8. |
| 58. A beam flange for mounting a horizontal beam of a rack on a vertical member of a rack, comprising an L-shaped flange, having a substantially flat interior surface and an exterior surface and defining first and second legs, the first leg having two lugs protecting inwardly from its interior surface and defining first and second openings, the second opening having a slot portion, and wherein the interior surface defines a recess adjacent to slot portion. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 59. The beam flange of claim 58, and further comprising a resilient latch mounted on the first leg, the resilient latch including a clip extending through the second opening and retained in the recess. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 60. The beam flange of claim 59, wherein the resilient latch further includes a locking pin which extends through the first opening. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 61. The beam flange of claim 60, wherein the locking pin has a shank and a locking pin flange and the first opening defines an enlarged aperture large enough to permit the locking pin flange to pass through and a slot portion, which is wide enough to permit the shank to pass through but not wide enough to permit the locking pin flange to pass through. | Figs. 1 & 6-8 and pages 5 and 12-14. |
| 62. The beam flange of claim 61, wherein the interior surface also defines a recess adjacent to the slot portion of the first opening, to permit the locking pin flange to be retracted to a position substantially flush with the interior surface. | Figs. 1 & 6-8 and pages 12 (line 11) to 14 (line 1). |
| 63. A rack, including: | Fig. 1 and page 5, Figs. 6-8 and pages 12-14. |

| Present Patent Application Claims | Support In Specification |
|--|---|
| a plurality of vertical posts defining a plurality of vertical post holes, and a plurality of horizontal beams supported on the vertical posts; | Fig. 1 and page 5, Figs. 6-8 and pages 12-14. |
| a mounting bracket at the end of one of the horizontal beams, including an L-shaped member, having a substantially flat interior surface and an exterior surface and defining first and second legs, the first leg having at least two lugs projecting inwardly from its interior surface, the two lugs being received in two of the vertical post holes; wherein the first leg defines first and second openings, at least the first opening being aligned with one of the vertical post holes, each of the first an second openings having an enlarged aperture and a slot portion, wherein the interior surface defines a recess adjacent to each of the slot portions; and | d l |
| a resilient latch including a clip mounted in the recess of the second opening, with the vertical post preventing the clip from moving further inwardly, and including a locking pin having a shank and a locking pin flange, wherein the shank extends through the first opening and through the vertical post hole aligned with the first opening. | Fig. 1 and page 5, Figs. 6-8 and pages 12-14. |

VI. Explanation Establishing Applicant's Prima Facie Entitlement To Judgment

Applicants' present application is a continuation of co-pending application Serial No. 09/693,045 filed on October 20, 2000 which was a continuation of co-pending application Serial No. 09/300,923 filed on April 28, 1999. As demonstrated above, the presently pending claims are fully supported by the specification, and thus are entitled to a effective filing date of April 28, 1999. The earliest possible filing date to which the '109 patent specification may be entitled is February 5, 1999, less than three (3) months after the earliest possible filing date of

the application resulting in the '109 patent. After consideration of the relevant documents, counsel for the applicants states that there is a basis upon which the applicants are entitled to a judgment relative to the patentee.

VII. The Presently Outstanding Office Action

In the Office Action dated February 28, 2002, claims 15, 16, 18, 21 and 27-34 were rejected and claims 17, 19, 20 and 22-26 were objected to but indicated as allowable if rewritten in independent form. Applicants acknowledge and appreciate the Examiner's renumbering of claims 34-47 to 21-34. Claims 27, 28 and 32 were objected to because of certain informalities. Claims 27-34 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Claims 27-34 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 30, 31, 33-35 and 37 of co-pending application Serial No. 09/693,045.

Claims 15, 16, 21 and 27-34 were rejected under 35 U.S.C. § 102(e) as anticipated by Olsson et al. U.S. Patent 6,230,910. Claim 18 was rejected under 35 U.S.C. § 103(a) as obvious in view of the Olsson '910 patent in combination with Watanabe U.S. Patent 5,862,024.

The present invention is directed to a locking latch for use in locking a horizontal beam to a vertical post. Such locking systems are typically used in storage rack systems to prevent the accidental dislodging of a beam from a post.

Claims 27, 28 and 32 have been amended as suggested by the Examiner to remove any ambiguity. The scope of the claims has not been affected by these amendments. Applicants

respectfully suggest that these amendments remove the informality objections and the objections under 35 U.S.C. § 112, second paragraph. Applicants further note that the obviousness type double patenting rejection is no longer believed relevant as certain amendments to the claims of the 09/693,045 application have been entered. Applicants therefore request withdrawl of the obviousness type double patenting provisional rejection.

Claims 15, 27 and 32 have been amended to add the additional limitation that the beam flange also include a resilient arm retention opening (or flexible arm retention slot). Each of the drawings in the Olsson '910 patent illustrates a beam flange having an opening through which a locking pin passes. However, Olsson does not describe or illustrate a beam flange having two openings, one of which permits passage of the locking pin and a second which permits retention of the beam clip.

All of the remaining rejected claims, including claim 18 rejected under 35 U.S.C. § 103, depend from claim 15, claim 27 or claim 32. Applicants respectfully suggest that claims 15, 27 and 32, as amended, distinguish over the Olsson '910 patent. Since a dependent claim is patentable where the independent claim is patentable, the remaining pending claims are likewise patentable.

Regarding new claims 35-63, these claims are patterned after the Kautz et al. '109 patent claims which only recently issued. To the extent that those claims were patentable to Kautz, they are likewise patentable to applicants.

For these reasons, applicants respectfully request withdrawal of the outstanding rejections and declaration of the requested interference.